

[print](#) | [export](#)

**Publication number:** JP2000351773 A2  
**Publication country:** JAPAN  
**Publication type:** APPLICATION  
**Publication date:** 20001219  
**Application number:** JP19990161573  
**Application date:** 19990608  
**Priority:** JP19990161573 19990608 ;  
**Assignee:** YAMANOUCI PHARMACEUT CO LTD ;  
**Assignee<sup>std</sup>:** YAMANOUCI PHARMA CO LTD ;  
**Inventor<sup>std</sup>:** WATANUKI SUSUMU ; KIKUCHI KAZUMI ; KURAMOCHI TAKAHIRO ;  
SAITO CHIKA ; HARADA HIROCHIKA ; OKAZAKI TOSHIO ; KAWAGUCHI  
KENICHI ; HIRANO YUSUKE ;  
**International class<sup>1-7</sup>:** C07D307/68 ; A61K31/341 ; A61K31/381 ; A61P9/00 ; A61P13/00 ;  
A61P43/00 ; C07D409/04 ;  
**International class<sup>8</sup>:** C07D307/00 20060101 I C ; C07D307/68 20060101 I A ; A61K31/00  
20060101 I C ; A61K31/00 20060101 I A ; A61K31/34 20060101 I C ;  
A61K31/34 20060101 I A ; A61K31/34 20060101 I C ; A61K31/34 20060101 I  
A ; A61K31/38 20060101 I C ; A61K31/38 20060101 I A ; A61K31/38  
20060101 I C ; A61K31/38 20060101 I A ; A61P9/00 20060101 I C ;  
A61P9/00 20060101 I A ; A61P13/00 20060101 I C ; A61P13/00 20060101 I  
A ; A61P43/00 20060101 I C ; A61P43/00 20060101 I A ; C07D409/00  
20060101 I C ; C07D409/04 20060101 I A ;  
**Title:** MEDICAMENT CONSISTING OF FURAN DERIVATIVE  
**Abstract:** PROBLEM TO BE SOLVED: To obtain a new furan derivative having  
excellent maxi-K-channel opening action and useful as a high-conductance-  
type calcium-sensitive K-channel opening agent. SOLUTION: This new  
compound is a furan derivative of formula I (R1 is an aryl or heteroaryl; R2 is  
H, a lower alkyl, phenyl or the like; R3 is cyano or the like) (wherein excepting  
specific compounds such as 2-amino-5-phenyl-3- furannitrile), e.g. 2-amino-  
4-methyl-5-phenylfuran-3-carbonitrile. The compound of formula I is obtained,  
for example, by reacting a compound of formula II with an acetonitrile  
derivative of formula III to form a 4-oxobutyronitrile derivative of formula IV,  
which, in turn, is cyclized in the presence of an acid catalyst (pref.  
trifluoroacetic acid). This new compound thus obtained can exhibit high-  
conductance-type calcium-sensitive K-channel opening action, therefore  
being hopeful of its use in the therapies of pollakisuria, incontinence of urine  
and the like.  
  
**Cited by:** EP1556376 B1 ;

---